EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	25	(application program$4 software) with (lifecycle life-cycle (life adj cycle)) with (run$4 execut$) with state	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:44
L2	103	(((application program$4 software) with (cycle lifecycle life-cycle (life adj cycle)) with (run$4 execut$) with state) same (stat$3 with (activ$5 paus$3 load$3 destroy$3))) and ((program$4 software application) with (manag$5 control$4) with (run$4 execut$7))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:43
L3	143	((application program$4 software) with (cycle lifecycle life-cycle (life adj cycle)) with (run$4 execut$) with state) same (stat$3 with (activ$5 paus$3 load$3 destroy$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:42
L5	5	((application program$4 software) with (lifecycle life-cycle (life adj cycle)) with (run$4 execut$) with state) same ((manag$5 control$4) with (activ$5 paus$3 load$3 destroy$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:47
L6	14	((application program$4 software) with (lifecycle life-cycle (life adj cycle)) with (run$4 execut$) with state) with ((manag$5 control$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:57
L7	2	l3 and 718/100.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:58
L8	1	l6 and 718/100.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:58
L9	0	l6 and 718/104.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:58
L10	2	l3 and 718/104.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:58
L11	1	l3 and 717/166.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/11/22 10:59

EAST Search History

L12	2	l6 and 717/166.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2006/11/22 10:59

Terms used
application or **program** or **software** **paragraph** **lifecycle** **near/5** **run** or **execute** **near/4** **state** **near/4** **manage** or

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101 Migrating well engineered Ada 83 applications into newer architecture and reuse based Ac systems: experiences from Boeing's reuse initiative project
Scott Arthur Moody
December 1996 **Proceedings of the conference on TRI-Ada '96: disciplined software develo with Ada**
Publisher: ACM Press
Full text available: pdf(1.25 MB) Additional Information: full citation, references, citings, index terms

102 Modeling, evaluation, and testing of paradyn instrumentation system
Abdul Waheed, Diane T. Rover, Jeffrey K. Hollingsworth
November 1996 **Proceedings of the 1996 ACM/IEEE conference on Supercomputing (CDROI Supercomputing '96**
Publisher: IEEE Computer Society
Full text available: pdf(225.73 KB) Additional Information: full citation, abstract, references, citings, index ter

This paper presents a case study of modeling, evaluating, and testing the data collection servic an instrumentation system) of the Paradyn parallel performance measurement tool using well-k performance evaluation and experiment design techniques. The overall objective of the study is modeling- and simulation-based evaluation to provide feedback to the tool developers to help tl system configurations and task scheduling policies that can significantly reduce the ...

103 XXL: a dual approach for building user interfaces
Eric Lecolinet
November 1996 **Proceedings of the 9th annual ACM symposium on User interface software technology**
Publisher: ACM Press
Full text available: pdf(1.96 MB) Additional Information: full citation, references, citings, index terms

Keywords: distributed interfaces, interface builders, iterative development, scripting language: and visual equivalence, user interface software

104 Level II technical support in a distributed computing environment

81 Summary of the sigmetrics symposium on parallel and distributed processing

Jeffrey K. Hillingsworth, Barton P. Miller
March 1999 **ACM SIGMETRICS Performance Evaluation Review**, Volume 26 Issue 4
Publisher: ACM Press
Full text available: pdf(1.17 MB) Additional Information: full citation, index terms

82 A survey of structured and object-oriented software specification methods and techniques

Roel Wieringa
December 1998 **ACM Computing Surveys (CSUR)**, Volume 30 Issue 4
Publisher: ACM Press
Full text available: pdf(605.26 KB) Additional Information: full citation, abstract, references, citings, index ter

This article surveys techniques used in structured and object-oriented software specification me techniques are classified as techniques for the specification of external interaction and internal decomposition. The external specification techniques are further subdivided into techniques for specification of functions, behavior, and communication. After surveying the techniques, we sur the way they are used in structured and object-oriented methods and indicate ways in w ...

Keywords: languages

83 Performance and dependability evaluation of scalable massively parallel computer system conjoint simulation

Axel Hein, Mario Dal Cin
October 1998 **ACM Transactions on Modeling and Computer Simulation (TOMACS)**, Volume 8 I
Publisher: ACM Press
Full text available: pdf(501.59 KB) Additional Information: full citation, abstract, references, citings, index ter

Computer systems are becoming more and more a part of our daily life; business and industry i their service, and the health of human beings depends on their correct functioning. Computer s used for critical tasks have to be carefully designed and tested during the early design stage, th prototype phase, and their operational life. Methods and tools are required to support and facilit vital task. In this article, we tackle the issue of system-level performance and depen ...

Keywords: fault-tolerant and large-scale computer systems, hierarchical model design, object-

modeling, process-based simulation, timed Petri nets

84 Performance monitoring in a Myrinet-connected SHRIMP cluster

Cheng Liao, Margaret Martonosi, Douglas W. Clark
August 1998 **Proceedings of the SIGMETRICS symposium on Parallel and distributed tools**
Publisher: ACM Press
Full text available: pdf(1.26 MB) Additional Information: full citation, references, citings, index terms

85 Guidance for the use of the Ada programming language in high integrity systems

B. A. Wichmann
July 1998 **ACM SIGAda Ada Letters**, Volume XVIII Issue 4
Publisher: ACM Press
Full text available: pdf(2.93 MB) Additional Information: full citation, abstract, citings, index terms

This paper is the current result of a study by the ISO HRG Rapporteur group which is being circ comment. Many people have contributed to this, but those who have either attended two recen of group or have made substantial e-mail comments are: Praful V Bhansali (Boeing, USA), Alan (University of York, UK), Bernard Carre' (Praxis Critical Systems, UK), Dan Craigen (ORA, Cana Johnson MoD, UK), Stephen Michell (Canada), Gilles Motet (DGEI/INSA, France), George Roma

86 Version models for software configuration management

Reidar Conradi, Bernhard Westfechtel
June 1998 **ACM Computing Surveys (CSUR)**, Volume 30 Issue 2
Publisher: ACM Press
Full text available: pdf(483.54 KB) Additional Information: full citation, abstract, references, citings, index ter

After more than 20 years of research and practice in software configuration management (SCM constructing consistent configurations of versioned software products still remains a challenge. focuses on the version models underlying both commercial systems and research prototypes. It an overview and classification of different versioning paradigms and defines and relates fundam concepts such as revisions, variants, configurations, and changes. In particular, we foc ...

Keywords: changes, configuration rules, configurations, revisions, variants, versions

87 Using metalevel techniques in a flexible toolkit for CSCW applications

Paul Dourish
June 1998 **ACM Transactions on Computer-Human Interaction (TOCHI)**, Volume 5 Issue 2
Publisher: ACM Press
Full text available: pdf(292.97 KB) Additional Information: full citation, abstract, references, citings, index ter

Ideally, software toolkits for collaborative applications should provide generic, reusable compon applicable in a wide range of circumstances, which software developers can assemble to produc applications. However, the nature of CSCW applications and the mechanics of group interaction problem. Group interactions are significantly constrained by the structure of the underlying infr below the level at which toolkits typically offer control. This article describe ...

Keywords: consistency control, consistency guarantees, data distribution, divergency, metalev programming, open implementation, software architecture

88 Workshop on compositional software architectures: workshop report

May 1998 **ACM SIGSOFT Software Engineering Notes**, Volume 23 Issue 3

Publisher: ACM Press
Full text available: pdf(2.91 MB) Additional Information: full citation, index terms

89 The design, implementation, and evaluation of Jade
Martin C. Rinard, Monica S. Lam
May 1998 **ACM Transactions on Programming Languages and Systems (TOPLAS)**, Volume :
Publisher: ACM Press
Full text available: pdf(576.88 KB) Additional Information: full citation, abstract, references, citings, index ter

Jade is a portable, implicitly parallel language designed for exploiting task-level concurrency.Jac programmers start with a program written in a standard serial, imperative language, then use J constructs to declare how parts of the program access data. The Jade implementation uses this access information to automatically extract the concurrency and map the application onto the m hand. The resulting parallel execution preserves the semantics of the original serial program ...

Keywords: parallel computing, parallel programming languages

90 Self-adaptive software for signal processing
Janos Sztipanovits, Gabor Karsai, Ted Bapty
May 1998 **Communications of the ACM**, Volume 41 Issue 5
Publisher: ACM Press
Full text available: pdf(325.60 KB) Additional Information: full citation, references, citings, index terms, review

91 Architecture-based runtime software evolution
Peyman Oreizy, Nenad Medvidovic, Richard N. Taylor
April 1998 **Proceedings of the 20th international conference on Software engineering**
Publisher: IEEE Computer Society
Full text available: pdf(1.28 MB) Publisher Site Additional Information: full citation, references, citings, index terms

92 Frameworks for component-based client/server computing
Scott M. Lewandowski
March 1998 **ACM Computing Surveys (CSUR)**, Volume 30 Issue 1
Publisher: ACM Press
Full text available: pdf(243.81 KB) Additional Information: full citation, references, citings, index terms

93 PELLPACK: a problem-solving environment for PDE-based applications on multicomputer
E. N. Houstis, J. R. Rice, S. Weerawarana, A. C. Catlin, P. Papachiou, K.-Y. Wang, M. Gaitatzes
March 1998 **ACM Transactions on Mathematical Software (TOMS)**, Volume 24 Issue 1
Publisher: ACM Press
Full text available: pdf(26.30 MB) Additional Information: full citation, abstract, references, citings, index ter

The article presents the software architecture and implementation of the problem-solving envir (PSE) PELLPACK for modeling physical objects described by partial differential equations (PDEs) of this PSE is broad, as PELLPACK incorporates many PDE solving systems, and some of these,

include several specific PDE solving methods. Its coverage for 1D, 2D. and 3D elliptic or parabo problems is quite broad, and it handles some hyperbolic problems, Since a PSE should p ...

Keywords: PDE language, execution models, knowledge bases, libraries, parallel reuse methoc problem-solving environments, programming-in-the-large, sofeware bus

94 Controlling access in multiuser interfaces

Prasun Dewan, Honghai Shen
March 1998 **ACM Transactions on Computer-Human Interaction (TOCHI)**, Volume 5 Issue 1
Publisher: ACM Press
Full text available: pdf(182.07 KB) Additional Information: full citation, abstract, references, citings, index ter

Traditionally, access control has been studied in the areas of operating systems and database management systems. With the advent of multiuser interfaces, there is a need to provide acces the user interface. We have developed a general framework for supporting access control in mu interfaces. It is based on the classical notion of an access matrix, a generalized editing-based m user-application interaction, and a flexible model of user-user coupling. It has been de ...

Keywords: access control, collaboration, computer-supported cooperative work, groupware, pr security, structure editors, user interface management systems

95 Fast detection of communication patterns in distributed executions

Thomas Kunz, Michiel F. H. Seuren
November 1997 **Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research**
Publisher: IBM Press
Full text available: pdf(4.21 MB) Additional Information: full citation, abstract, references, index terms

Understanding distributed applications is a tedious and difficult task. Visualizations based on pr diagrams are often used to obtain a better understanding of the execution of the application. Th visualization tool we use is Poet, an event tracer developed at the University of Waterloo. Howe diagrams are often very complex and do not provide the user with the desired overview of the a In our experience, such tools display repeated occurrences of non-trivial commun ...

96 Ada-Java communication in ADEPT

Anthony Gargaro
November 1997 **Proceedings of the conference on TRI-Ada '97**
Publisher: ACM Press
Full text available: pdf(2.12 MB) Additional Information: full citation, references, index terms

97 Assessing process-centered software engineering environments

Vincenzo Ambriola, Reidar Conradi, Alfonso Fuggetta
July 1997 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Volume
Publisher: ACM Press
Full text available: pdf(342.52 KB) Additional Information: full citation, abstract, references, citings, index ter

Process-centered software engineering environments (PSEEs) are the most recent generation o environments supporting software development activities. They exploit an representation of the (called the process model that specifies how to carry out software development activities, the r tasks of software developers, and how to use and control software development tools. A proces therefore a vehicle to better understand and communicate the process. If ...

Keywords: CASE, enabling technology, process modeling languages, process-centered softwar engineering environments, software process

98 Trace-driven memory simulation: a survey

Richard A. Uhlig, Trevor N. Mudge
June 1997 **ACM Computing Surveys (CSUR)**, Volume 29 Issue 2
Publisher: ACM Press
Full text available: pdf(636.11 KB) Additional Information: full citation, abstract, references, citings, index ter

As the gap between processor and memory speeds continues to widen, methods for evaluating system designs before they are implemented in hardware are becoming increasingly important. method, trace-driven memory simulation, has been the subject of intense interest among resea has, as a result, enjoyed rapid development and substantial improvements during the past dec article surveys and analyzes these developments by establishing criteria for evaluating trac ...

Keywords: TLBs, caches, memory management, memory simulation, trace-driven simulation

99 Report from the NSF workshop on workflow and process automation in information systen

Amit Sheth, Dimitrios Georgakopoulos, Stef M. M. Joosten, Marek Rusinkiewicz, Walt Scacchi, Jack Alexander L. Wolf
January 1997 **ACM SIGSOFT Software Engineering Notes**, Volume 22 Issue 1
Publisher: ACM Press
Full text available: pdf(1.24 MB) Additional Information: full citation, abstract, citings, index terms

An interdisciplinary research community needs to address challenging issues raised by applying management technology in information systems. This conclusion results from the NSF worksho Workflow and Process Automation in Information Systems which was held at the State Botanica Georgia during May 8-10, 1996. The workshop brought together active researchers and practiti several communities, with significant representation from database and distributed systems, so

100 Task dependence and termination in Ada

Laura K. Dillon
January 1997 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Volume
Publisher: ACM Press
Full text available: pdf(685.94 KB) Additional Information: full citation, abstract, references, index terms, revi

This article analyzes the semantics of task dependence and termination in Ada. We use a conto Ada tasking in examining the implications of and possible motivation for the rules that determin procedures and tasks terminate during execution of an Ada program. The termination rules pre data that belong to run-time instances of scope units from being deallocated prematurely, but t unnecessarily conservative in this regard. For task instances that are created by i ...

Keywords: Ada tasking, distributed termination, master/dependent relation, task termination, execution model

72 Databases in software engineering: a roadmap

Klaus R. Dittrich, Dimitrios Tombros, Andreas Geppert
May 2000 **Proceedings of the Conference on The Future of Software Engineering**
Publisher: ACM Press
Full text available: pdf(1.33 MB) Additional Information: full citation, references, index terms

73 Software maintenance and evolution: a roadmap

Keith H. Bennett, Václav T. Rajlich
May 2000 **Proceedings of the Conference on The Future of Software Engineering**
Publisher: ACM Press
Full text available: pdf(1.40 MB) Additional Information: full citation, references, citings, index terms

74 Formal specification: a roadmap

Axel van Lamsweerde
May 2000 **Proceedings of the Conference on The Future of Software Engineering**
Publisher: ACM Press
Full text available: pdf(1.30 MB) Additional Information: full citation, references, citings, index terms

75 Task force report and recommendations

January 2000 **ACM SIGMIS Database**, Volume 31 Issue 1
Publisher: ACM Press
Full text available: pdf(4.42 MB) Additional Information: full citation, index terms

76 The use of multithreading for exception handling

Craig B. Zilles, Joel S. Emer, Gurindar S. Sohi
November 1999 **Proceedings of the 32nd annual ACM/IEEE international symposium on Microarchitecture**
Publisher: IEEE Computer Society
Full text available: pdf(1.49 MB) Publisher Site Additional Information: full citation, abstract, references, citings, index ter

Common hardware exceptions, when implemented by trapping, unnecessarily serialize program in dynamically scheduled superscalar processors. To avoid the consequences of trapping the ma thread, multithreaded CPUs can exploit control and data independence by executing the excepti in a separate hardware context. The main thread doesn't squash instructions after the excepting instruction, conserving fetch bandwidth and allowing execution of instructions inde ...

77 PRIME—toward process-integrated modeling environments: 1

Klaus Pohl, Klaus Weidenhaupt, Ralf Dömges, Peter Haumer, Matthias Jarke, Ralf Klamma
October 1999 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Volume
Publisher: ACM Press
Full text available: pdf(1.15 MB) Additional Information: full citation, abstract, references, citings, index ter

Research in process-centered environments (PCEs) has focused on project management suppor neglected method guidance for the engineers performing the (software) engineering process. It dominated by the search for suitable process-modeling languages and enactment mechanisms.

consequences of process orientation on the computer-based engineering environments, i.e., the tools used during process performance, have been studied much less. In this article, we prese .

Keywords: PRIME, method guidance, process modeling, process-centered environments, proce integrated environments, process-sensitive tools, tool integration, tool modeling

78 Reducing maintenance costs through the application of modern software architecture princ

Christine Hulse, Scott Edgerton, Michael Ubnoske, Louis Vazquez

September 1999 **ACM SIGAda Ada Letters , Proceedings of the 1999 annual ACM SIGAda int conference on Ada SIGAda '99**, Volume XIX Issue 3

Publisher: ACM Press

Full text available: pdf(796.32 KB) Additional Information: full citation, abstract, references, citings, index ter

Large software programs are usually long lived and continually evolve. Substantial maintenance often extended by engineers trying to understand the software prior to making changes. To suc evolve the software, a thorough understanding of the architect's intentions about software orga required. Software maintenance costs can be reduced significantly if the software architecture is defined, clearly documented, and creates an environment that promotes design consi ...

Keywords: architecture, design patterns, modeling, real-time software, software maintenance

79 Architectural framework modeling in telecommunication domain

Giulio Fregonese, Alessandro Zorer, Giovanni Cortese

May 1999 **Proceedings of the 21st international conference on Software engineering**

Publisher: IEEE Computer Society Press

Full text available: pdf(1.12 MB) Additional Information: full citation, references, citings, index terms

Keywords: architectural patterns, design patterns, distributed systems, domain analysis, netw service management, network traffic data analysis, object-oriented framework, software archite software reuse

80 GENOA—a customizable, front-end-retargetable source code analysis framework

Premkumar T. Devanbu

April 1999 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Volume

Publisher: ACM Press

Full text available: pdf(241.27 KB) Additional Information: full citation, abstract, references, citings, index ter

Code analysis tools provide support for such software engineering tasks as program understand software metrics, testing, and reengineering. In this article we describe GENOA, the framework application generators such as Aria and GEN++ which have been used to generate a wide range practical code analysis tools. This experience illustrates front-end retargetability of GENOA; we the features of the GENOA framework that allow it to be ...

Keywords: code inspection, metrics, reverse engineering, source analysis

Tim Leehane
September 1996 **Proceedings of the 24th annual ACM SIGUCCS conference on User services**
Publisher: ACM Press
Full text available: pdf(5.73 MB) Additional Information: full citation, references, index terms

105 Reusable software components
Trudy Levine
July 1996 **ACM SIGAda Ada Letters**, Volume XVI Issue 4
Publisher: ACM Press
Full text available: pdf(2.45 MB) Additional Information: full citation, index terms

106 TIPSTER architecture: TIPSTER text phase II architecture concept
Architecture Committee
May 1996 **Proceedings of a workshop on held at Vienna, Virginia: May 6-8, 1996**
Publisher: Association for Computational Linguistics
Full text available: pdf(1.28 MB) Additional Information: full citation, abstract

The TIPSTER Architecture is a software architecture for providing Document Detection (i.e. Info Retrieval and Message Routing) and Information Extraction functions to text handling applicatio high level architecture is described in an Architecture Design Document. In May 1996, when the architecture design is complete, an Interface Control Document will be provided specifying the f content of all inputs and outputs to the TIPSTER modules.

107 TIPSTER architecture: TIPSTER text phase II configuration management plan
Architecture Committee
May 1996 **Proceedings of a workshop on held at Vienna, Virginia: May 6-8, 1996**
Publisher: Association for Computational Linguistics
Full text available: pdf(909.69 KB) Additional Information: full citation, abstract

This document presents the TIPSTER Text Phase II Configuration Management (CM) Plan for ide controlling, and auditing the TIPSTER Architecture status and configuration definition.

108 Experiences with building distributed debuggers
Michael S. Meier, Kevan L. Miller, Donald P. Pazel, Josyula R. Rao, James R. Russell
January 1996 **Proceedings of the SIGMETRICS symposium on Parallel and distributed tools**
Publisher: ACM Press
Full text available: pdf(1.34 MB) Additional Information: full citation, references, index terms

109 DECALS: distributed experiment control and logging system
Alex Hubbard, C. Murray Woodside, Cheryl Schramm
November 1995 **Proceedings of the 1995 conference of the Centre for Advanced Studies on Collaborative research**
Publisher: IBM Press
Full text available: pdf(287.39 KB) Additional Information: full citation, abstract, references, citings, index ter

In developing distributed applications and services there is a need to be able to set up and run set of processes. The experiment might be to obtain performance data, to test the processes' b or to evaluate an application management strategy. Common requirements are • to load and r versions of at least some of the software, often on multiple nodes of a network, • to initialize th in a well-controlled way, so the tests may be repeatable, • ...

110 A Model and a System for Data-Parallel Program Visualization
Thomas A. Wagner, R. Daniel Bergeron
October 1995 **Proceedings of the 6th conference on Visualization '95**
Publisher: IEEE Computer Society
Full text available: pdf(1.50 MB) Publisher Site Additional Information: full citation, abstract

Parallel program visualization and debugging require new techniques for gathering and displayi execution trace and profile data. Interaction with the program during execution is also required parallel debugging. We discuss the difficulties associated with runtime user/program interaction the data-parallel programming paradigm facilitates much more liberal runtime interaction than MIMD-based models. We present a model for data-parallel program visualization that ad ...

Keywords: visualization, parallel languages, SPMD, MIMD, SIMD

111 A compiler-directed distributed shared memory system
Tzi-cker Chiueh, Manish Verma
July 1995 **Proceedings of the 9th international conference on Supercomputing**
Publisher: ACM Press
Full text available: pdf(1.22 MB) Additional Information: full citation, references, citings, index terms

112 Pen computing: a technology overview and a vision
André Meyer
July 1995 **ACM SIGCHI Bulletin**, Volume 27 Issue 3
Publisher: ACM Press
Full text available: pdf(5.14 MB) Additional Information: full citation, abstract, citings, index terms

This work gives an overview of a new technology that is attracting growing interest in public as the computer industry itself. The visible difference from other technologies is in the use of a pe as the primary means of interaction between a user and a machine, picking up the familiar pen interface metaphor. From this follows a set of consequences that will be analyzed and put into c other emerging technologies and visions.Starting with a short historic ...

113 Implications of hierarchical N-body methods for multiprocessor architectures
Jaswinder Pal Singh, John L. Hennessy, Anoop Gupta
May 1995 **ACM Transactions on Computer Systems (TOCS)**, Volume 13 Issue 2
Publisher: ACM Press
Full text available: pdf(4.66 MB) Additional Information: full citation, abstract, references, citings, index ter

To design effective large-scale multiprocessors, designers need to understand the characteristic applications that will use the machines. Application characteristics of particular interest include of communication relative to computation, the structure of the communication, and the local ca memory requirements, as well as how these characteristics scale with larger problems and mac important class of applications is based on hierarchical N-body methods, w ...

Keywords: N-body methods, communication abstractions, locality, message passing, parallel a parallel computer architecture, scaling, shared address space, shared memory

114 Supporting dynamic data structures on distributed-memory machines
Anne Rogers, Martin C. Carlisle, John H. Reppy, Laurie J. Hendren

March 1995 **ACM Transactions on Programming Languages and Systems (TOPLAS)**, Volume
Publisher: ACM Press
Full text available: pdf(2.05 MB) Additional Information: full citation, abstract, references, citings, index ter

Compiling for distributed-memory machines has been a very active research area in recent yea this work has concentrated on programs that use arrays as their primary data structures. To da work has been done to address the problem of supporting programs that use pointer-based dyr structures. The techniques developed for supporting SPMD execution of array-based programs i fact that arrays are statically defined and directly addressable. Recursive data s ...

Keywords: dynamic data structures

115 User interface software tools

Brad A. Myers
March 1995 **ACM Transactions on Computer-Human Interaction (TOCHI)**, Volume 2 Issue 1
Publisher: ACM Press
Full text available: pdf(3.25 MB) Additional Information: full citation, abstract, references, citings, index ter

Almost as long as there have been user interfaces, there have been special software systems a help design and implement the user interface software. Many of these tools have demonstrated productivity gains for programmers, and have become important commercial products. Others h proven less successful at supporting the kinds of user interfaces people want to build. This artic discusses the different kinds of user interface software tools, and investigates why some ...

Keywords: interface builders, toolkits, user interface development environments, user interfac

116 A concurrency analysis tool suite for Ada programs: rationale, design, and preliminary exp

Michal Young, Richard N. Taylor, David L. Levine, Kari A. Nies, Debra Brodbeck
January 1995 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Volume
Publisher: ACM Press
Full text available: pdf(2.93 MB) Additional Information: full citation, abstract, references, citings, index ter

Cats (Concurrency Analysis Tool Suite) is designed to satisfy several criteria: it must analyze implementation-level Ada source code and check user-specified conditions associated with prog code; it must be modularized in a fashion that supports flexible composition with other tool con including integration with a variety of testing and analysis techniques; and its performance and must be sufficient for analysis of real application programs. Meeting these objectiv ...

Keywords: Ada, concurrency, software development environments, static analysis, tool integra

117 The case of the killer robot (part 2)

Richard G. Epstein
December 1994 **ACM SIGCAS Computers and Society**, Volume 24 Issue 4
Publisher: ACM Press
Full text available: pdf(2.22 MB) Additional Information: full citation, citings, index terms

118 An object-oriented, distributed architecture for large-scale Ada systems

Phillipe Kruchten, Christopher J. Thompson
November 1994 **Proceedings of the conference on TRI-Ada '94**
Publisher: ACM Press
Full text available: pdf(1.14 MB) Additional Information: full citation, abstract, references, citings, index ter

This paper presents an architectural model ideally suited for the description of large, distributec and control systems. This model is organized around multiple dimensions (or views) of software architecture and is used to describe the software architecture of a family of automated air traffi systems currently under development by Hughes Aircraft of Canada. Some of the features of th systems are described, and in particular the mechanism used for transparent acc ...

119 Software understanding through integrated structural and run-time analysis

Kenny Wong

October 1994 **Proceedings of the 1994 conference of the Centre for Advanced Studies on Collaborative research**

Publisher: IBM Press

Full text available: pdf(179.25 KB) Additional Information: full citation, abstract, references, index terms

The problem of software evolution is particularly acute. It requires a comprehensive understanc whole software system, including its architectural and run-time aspects. Reverse engineering te have traditionally focused on static information, using compiler-based technologies for lexical, s structural, and semantic analysis. There is little emphasis on runtime information. However, de performing optimizing, testing, and debugging tasks for evolution require run ...

120 An annotated bibliography of interactive program steering

Weiming Gu, Jeffrey Vetter, Karsten Schwan

September 1994 **ACM SIGPLAN Notices**, Volume 29 Issue 9

Publisher: ACM Press

Full text available: pdf(1.24 MB) Additional Information: full citation, citings, index terms